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February 11, 2002

The Honorable Christine Todd Whitman  
Administrator  
U.S. Environmental Protection Agency  
Ariel Rios Building  
Room 3000, #1101-A  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20460

Subject: Comments on the Pine Chemicals Association, Inc.'s HPV Test Plan for Rosin Adducts and Adduct Salts

Dear Administrator Whitman:

The following comments on the Pine Chemicals Association, Inc.'s (PCA's) test plan for rosin adducts and adduct salts are submitted on behalf of the Physicians Committee for Responsible Medicine, People for the Ethical Treatment of Animals, the Humane Society of the United States, the Doris Day Animal League, and Earth Island Institute. These health, animal protection, and environmental organizations have a combined membership of more than nine million Americans. The PCA includes such well-known chemical companies as Eastman Chemical Co. and Akzo Nobel. On February 7, 2002, we submitted comments on Akzo Nobel's test plan for trixylenyl phosphate. Our review found this test plan demonstrated a blatant disregard for the minimal animal welfare principles outlined in the October 1999 Agreement among the EPA, industry, and health, animal protection, and environmental organizations.

This current test plan violates the following terms of the October 1999 Agreement:

2. Participants shall maximize the use of existing and scientifically adequate data to minimize further testing.
3. Participants shall maximize the use of scientifically appropriate categories of related chemicals and structure activity relationships.

Rosins are naturally occurring substances found in pine trees and used commercially for printing inks, adhesives, chewing gums, coatings, soaps, and detergents. The rosin adducts and adduct salts category is closely related to the rosins category and consists of rosins that have been chemically reacted with fumaric acid or maleic anhydride. These substances are used as chemical intermediates in manufacturing printing inks and for paper sizing.

The PCA is proposing a full SIDS battery on fumarated rosin. The proposed battery includes the OECD 401 acute oral toxicity test (the notorious "LD-50"), OECD 422 combined repeat dose/reproductive/developmental toxicity test, and the OECD 203 acute fish toxicity test. These tests will kill approximately 500 animals.

Any additional testing whatsoever of rosins and rosin adducts is inappropriate. The PCA has already proposed testing of similar chemicals in the previous test plan for rosins and rosin salts. The PCA should have included these rosin adducts in the rosins category. All these chemicals are closely related and are substances with high molecular weight, low solubility, and high Kow, indicating that they should exhibit similar behaviors. An expansion of the category would provide greater insight into the relationship between structure and toxicity and, importantly, would reduce the numbers of animals killed in this HPV testing.

Once again, we recommend that the PCA replace its acute fish toxicity tests with other methods, such as ECOSAR or TETRATOX. The PCA is, yet again, proposing irrelevant aquatic toxicity tests on fish. Testing fumarated rosin on fish is especially inappropriate because its insolubility in water and lack of hydrolyzable functional groups hinder the ability to conduct aquatic tests and indicate that this chemical is unlikely to be bioavailable to aquatic life. The PCA acknowledges the limitations of testing rosins in aquatic environments and therefore proposes to manipulate experimental conditions, which may confound the results.

Finally, **it is completely inappropriate for any HPV chemical sponsor to be proposing to use the LD-50 acute oral toxicity test.** This test is being phased out internationally, and alternative methods OECD 420, 423, and 425 incorporate at least minimal principles of reduction and refinement. Information about the replacement of the OECD test 401 with other protocols can be viewed at <http://www1.oecd.org/ehs/test/> and <http://www1.oecd.org/ehs/test/health.htm#425>. The LD-50 has long been denounced for causing severe suffering in animals while producing unreliable, inaccurate results.

Additionally, in any acute toxicity testing, the PCA should use the *in vitro* cytotoxicity test to set the starting dose. The Interagency Coordinating Committee on the Validation of Alternative Methods' (ICCVAM's) Report of the International Workshop on *In Vitro* Methods for Assessing Acute Systemic Toxicity recommends that *in vitro* cytotoxicity tests be used immediately to set the starting dose for *in vivo* tests and states that their use as complete replacements of the *in vivo* tests is an objective that can be reasonably achieved in the near future. This report can be viewed at <http://iccvam.niehs.nih.gov/methods/invitro.htm>. All *in vivo* and *in vitro* data should be submitted to the EPA in an appropriate form for validation of the *in vitro* test as a full replacement method for lethal animal poisoning tests.

It is our understanding that the EPA will soon issue a guidance document to all HPV participating companies and trade associations on how to use the *in vitro* cytotoxicity test in the HPV program. The EPA, as co-chair and member of ICCVAM as well as a participant and sponsor of the international acute toxicity workshop, must take the lead in disseminating the information from the workshop report in a way that is accessible and transparent to the HPV participating companies.

As stated above, none of the animal tests the PCA has proposed is appropriate. The proposal to conduct the LD-50 demonstrates a lack of concern for staying up-to-date with advances in chemical testing as well as in reducing animal suffering. We ask that the EPA immediately instruct all HPV participants that the LD-50 test is not to be used and request that the PCA withdraw this testing proposal.

Thank you for the opportunity to comment. I can be reached at 202-686-2210, ext. 302, or via e-mail at [ncardello@pcrm.org](mailto:ncardello@pcrm.org). Correspondence should be sent to my attention at PCRM, 5100 Wisconsin Ave., N.W., Washington, DC 20016. I look forward to your response.

Sincerely,

Nicole Cardello, M.H.S.  
Staff Scientist